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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,562	08/29/2001	Yoichiro Mizumoto		9546

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EXAMINER

PAULRAJ, CHRISTOPHER

ART UNIT	PAPER NUMBER
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1773

4

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,562

Applicant(s)

MIZUMOTO, YOICHIRO

Examiner

Christopher G. Paulraj

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term "optical coherent pigment" is not clearly defined in the claims or the specification. The claims are rendered indefinite because one skilled in the art would not be able to readily ascertain exactly what qualifies as such.
4. The term "scaly" renders claims 3 and 7 indefinite because it is a relative term and one skilled in the art would not be able to readily ascertain the requisite scope in order to determine exactly what qualifies as such.
5. Claims 6 recites an alternative limitation using improper Markush group terminology. Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, is recited as "wherein R is a material selected from the group consisting of A, B, C and D." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925). It is improper to use the term "comprising" instead of "consisting of." Ex parte Dotter, 12 USPQ 382 (Bd. App. 1931). Another acceptable form is recited as "wherein R is A, B, C or D." See MPEP 2173.05(h).

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6. Claim 7 is also indefinite because it is unclear whether the phrase "iron oxide-coated mica flakes and bismuth trichloride" are considered as one single element in the recited Markush group. That is, it is not clear whether the iron oxide-coated mica flakes are required to also include bismuth trichloride.

7. Claims 8 and 9 are indefinite because it is unclear which order the different recited layers are required to be laminated onto the transparent substrate. In claim 8, it is not clear from the claims if the colored layer is required to be laminated before the clear layer. In claim 9, it is not clear whether the adhesive layer is required to be laminated first onto the substrate before the colored and clear layers.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by McDaniel (U.S. Patent 5,747,153).

McDaniel discloses glass objects having a durable thin lustrous coating of an inorganic based luster pigment with a thickness of less than 25 microns (abstract). The pigment particles can be mica flakes coated with titanium dioxide and can have a particle length ranging from about 1 microns to about 180 microns (col. 3, lines 4-18).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McDaniel.

McDaniel does not specifically disclose the concentration of pigments to be used in the lustrous coating. However, one skilled in the art would have found it obvious to optimize the luster and appearance of the coating by adjusting the titanium dioxide-coated mica flakes to within the claimed range. Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

12. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDaniel in view of JP3143575.

McDaniel does not specifically disclose that the glass objects are further coated with a clear coat as described in the present claims 8 and 9. However, JP3143575 discloses that clear coats can be applied over colored base layers having an interference mica pigment coated with titanium dioxide. The vitreous enamel coating disclosed by McDaniel (see col. 6, lines 8-9) can be considered equivalent to the

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claimed adhesive layer. One skilled in the art would have found it obvious to incorporate a clear coat such as that disclosed in JP3143575 on the coated article disclosed by McDaniel. The motivation for doing so would have been to improve the appearance and the durability of the coated article.

13. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (EP 0578 829 A1) in view of McDaniel and JP3143575.

Suzuki et al. discloses a laminated body that can be used in windows for vehicles made with a light transmitting base material and a coating layer containing titanium dioxide coated-mica particles (abstract). Although Suzuki et al. does not specifically disclose the claimed thickness range, one skilled in the art would have found it obvious to adjust the thickness to under 25 microns in light of the teachings of McDaniel. The motivation for doing so would have been to optimize the appearance of the laminated body. One skilled in the art would also have found it obvious to incorporate an adhesive layer and a clear coat layer, such as that taught by JP3143575 and McDaniel, in the laminated body. The motivation for doing so would have been to improve the appearance and the durability of the laminated article. One skilled in the art would also have found it obvious to optimize the luster and appearance of the coating by adjusting the titanium dioxide-coated mica flakes to within the claimed range.

Information Disclosure Statement

14. Receipt of Information Disclosure Statement filed on January 24, 2002 is acknowledged and has been made of record. Foreign language documents were only considered to the extent of what their English abstracts provided.

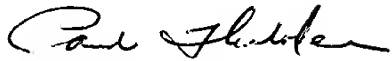
Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher G. Paulraj whose telephone number is (703) 308-1036. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

cgp
November 27, 2002


Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700